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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,467	11/19/2003	Luliang Jiang	59864.01178	3763

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EXAMINER	
SAEED, USMAAN	

ART UNIT	PAPER NUMBER
2166	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,467	JIANG, LULIANG	
	Examiner	Art Unit	
	USMAAN SAEED	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Receipt of Applicant's Amendment, filed 01/10/2008 is acknowledged.

Claims 1-19 are pending in this office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-19 are rejected under 35 U.S.C 103(a) as being unpatentable over **Hovell et al**. (**Hovell** hereinafter) (International Publication Number WO 02/073933) in view of **Inouchi et al.** (**Inouchi** hereinafter) (U.S. Patent No. 7,085,270).

With respect to claim 1, **Hovell** teaches **a network name resolving element for performing name resolving in a network system which includes a first network using a first network protocol and a second network using a second network protocol, the network element comprising:**

"a name resolving unit configured to perform name resolving" as means for assigning an alias to a target network device in the first network, the alias being compatible with the communication protocol of the second network (**Hovell** Page 2, Lines 12-14) (**Hovell** Page 5, Lines 18-31).

"a first connection unit configured to provide a direct connection to the first network" as providing communication between a network device in a first network and a network device in a second network, where the first network operates in accordance with a first communication protocol and the second network operates in accordance with a second communication protocol (**Hovell** Page 2, Lines 8-11) (**Hovell** Figure 1).

"a second connection unit configured to provide a direct connection to the second network" as providing communication between a network device in a first network and a network device in a second network, where the first network operates in accordance with a first communication protocol and the second network operates in accordance with a second communication protocol (**Hovell** Page 2, Lines 8-11) (**Hovell** Figure 1).

"an address translation unit configured to perform address translation between the first network and the second network" as means for translating said assigned alias to an address for the target network device, said translated address being compatible with the communication protocol of the first network (**Hovell** Page 2, Lines 15-17).

"wherein the name resolving unit and the address translation unit are configured to co-operate in order to translate addresses upon performing name resolving" as said assigned alias corresponds to an address of the second means, such that, when a network device in the second network sends one or more communication(s) using an address comprising the assigned alias, the or each communication is routed to the second means, whereupon the second means translates the alias into the address of the target network device in the first network and sends the communication(s) into the first network (**Hovell** Page 2, Lines 19-24).

Hovell teaches the limitations of claim 1 as noted above but does not explicitly discloses **"the name resolving unit in the first network must forwards a request to a server in the second network, the request is sent directly from the name resolving unit in the first network to the second network."**

However, **Inouchi** discloses, **"the name resolving unit in the first network must forwards a request to a server in the second network, the request is sent directly from the name resolving unit in the first network to the second network"** as (**Inouchi** Col 2, Lines 36-62, and Figures 1, 14-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because **Inouchi's** teaching would have allowed **Hovell** to provide a scalable and practical address translation unit that permits mutual communication between two terminals through basic translation when a communication protocol of a network to which a terminal belongs differs from that of a network to which a communication partner terminal belongs.

Claims 10 and 19 are essentially the same as claim 1 except claim 10, which sets forth the claimed invention as a method and are rejected for the same reasons as applied hereinabove.

With respect to claim 2, **Hovell** teaches **"the network name resolving element according to claim 1, wherein the network element is a domain name service server"** as such processes include the DNS application level gateway (**Hovell** Page 5, Line 26).

Claim 11 is essentially the same as claim 2 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 3, **Hovell** teaches **"the network name resolving element according to claim 1, wherein the address translation unit is configured to select a particular network address translating element to be used for a connection**

between a first host in the first network and a second host in the second network" as the translator 101 then looks up 306 the mapping between assigned Ipv4 address and Ipv6 address to retrieve the Ipv6 address of host A, and make this 308 the destination address of the packet. For the packets to be routed from the translator 101 to host A, the translator 101 has to modify the source address of the packet, which is the Ipv4 address of node C, into Ipv6 format. This involves expanding 310 the Ipv4 address of host C with a prefix that is representative of the translator 101 (**Hovell** Page 6, Lines 16-22).

"wherein the address translation unit is configured to add network address translating element information to the resolved address" as when an Ipv4 packet arrives at the translator 101 a 96 bit prefix, which is indicative of the translator 101, is added to the source address of the packet (32 bits) to make an Ipv6 address (128 bits) (**Hovell** Page 6, Lines 25-27).

Claim 12 is essentially the same as claim 3 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 4, **Hovell** teaches **"the network name resolving element according to claim 3, wherein the network address translating element information is an address prefix"** as an IPv4 source address 10.10.10.10 arriving at the translator 101 could be given the prefix 2001:618:1:2:: so that the source IPv4 host has the following address in the IPv6 world 2001:618:1:2::10.10.10.10. An IPv6 packet

sent to this address would go to translator 101 because the prefix 2001:628:1:2:: routes to the translator 101 (**Hovell** Page 6, Lines 28-32).

Claim 13 is essentially the same as claim 4 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 5, **Hovell** teaches **"the network name resolving element according to claim 3, wherein the address translation unit is configured to select a network address translating element based on information regarding the load on the network address translating element"** as the selecting means is operable to monitor the device characteristics, so that selection of a device is based on current device performance. Monitored device characteristics include at least one of operational status of device, loading on device, and/or aliases available to the device (**Hovell** Page 3, Lines 8-11).

Claim 14 is essentially the same as claim 5 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 6, **Hovell** teaches **"the network element according to claim 1, wherein the first protocol is Internet Protocol version 6, and the second protocol is Internet Protocol version 4"** as a device so identified thereafter deal with all subsequent communication between hosts in IPv6 and IPv4, and the subsequent

communication is therefore independent of the controller operations (**Hovell** Page 7, Lines 26-27).

Claim 15 is essentially the same as claim 6 except it sets forth the claimed invention as a method and is rejected for the same reasons as applied hereinabove.

With respect to claim 7, **Hovell** teaches **"the network name resolving element according to claim 1, wherein the name resolving unit of the network element is configured to send a name resolve request to a name resolving element located in the second network"** as means for assigning an alias to a target network device in the first network, the alias being compatible with the communication protocol of the second network (**Hovell** Page 2, Lines 12-14). Assigned alias corresponds to an address of the second means, such that, when a network device in the second network sends one or more communication(s) using an address comprising the assigned alias, the or each communication is routed to the second means, whereupon the second means translates the alias into the address of the target network device in the first network and sends the communication(s) into the first network (**Hovell** Page 2, Lines 19-24).

Claim 8 is essentially the same as claims 1, 3 and 5, which sets forth the claimed invention as a system and is rejected for the same reasons as applied hereinabove.

With respect to claim 9, **Hovell** teaches **"the system according to claim 8, wherein the load information is sent using a Simple Network Management Protocol"** as the controller 401 can derive the loading on a device 403a by issuing simple network management protocol (SNMP) messages to a Management Information Base (MIB) that is maintained on the router (**Hovell** Page 9, Lines 17-19).

Claims 16 & 17 are essentially the same as claim 8 & 9 except they set forth the claimed invention as a method and are rejected for the same reasons as applied hereinabove.

With respect to claim 18, **Hovell** teaches **"the method according to claim 10, wherein the name resolve request processing comprises: forwarding a name resolve request from the first network directly to a network name resolving element in the second network; and receiving an address from the name resolving element in the second network"** as means for assigning an alias to a target network device in the first network, the alias being compatible with the communication protocol of the second network (**Hovell** Page 2, Lines 12-14). Assigned alias corresponds to an address of the second means, such that, when a network device in the second network sends one or more communication(s) using an address comprising the assigned alias, the or each communication is routed to the second means, whereupon the second means translates the alias into the address of the target network

device in the first network and sends the communication(s) into the first network (**Hovell** Page 2, Lines 19-24).

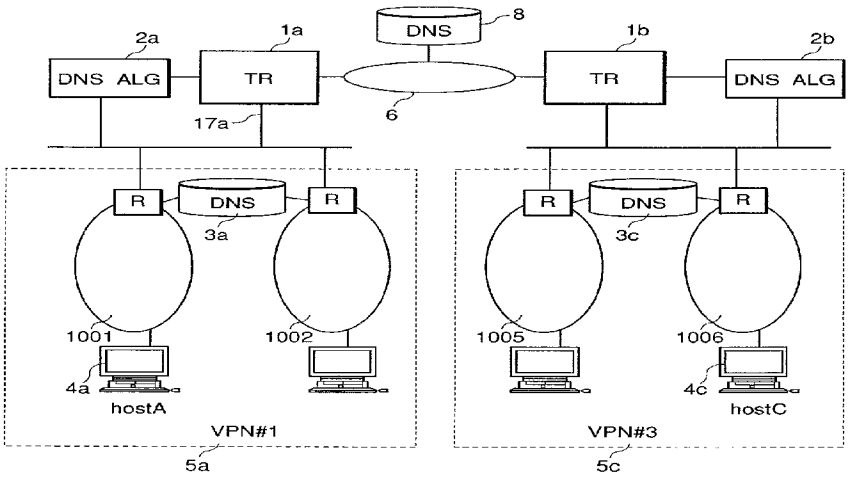
Response to Arguments

3. Applicant's arguments filed 01/10/2008 have been fully considered but they are not persuasive.

Applicant argues that **Hovell and Inouchi** do not teach or suggest **"the name resolving unit in the first network must forwards a request to a server in the second network, the request is sent directly from the name resolving unit in the first network to the second network."**

In response to the preceding arguments examiner respectfully submits that **Inouchi** teaches **"the name resolving unit in the first network must forwards a request to a server in the second network, the request is sent directly from the name resolving unit in the first network to the second network"** as the NAT and the translator take advantage of this fact, and constantly monitor messages of DNS interchanged upon commencement of communication to take a change of preparing translation information (such as the correspondence relation to IP address) of a request message for name resolution. Specifically, when an IPv6 terminal performs name resolution for a certain name and an IP address responsive thereto is based on IPv4, this IPv4 address is rewritten to an IPv6 address which in turn is returned to the IPv6 terminal (**Inouchi** Col 2, Lines 36-62, and Figures 1, 14-15).

FIG. 1



Therefore, Inouchi teaches in these lines and figure 1, the name resolving unit in a network that forwards the request to server/DNS in the second network.

Further, Hovell also teaches a DNS in the first network 104 and DNS in second network 106 wherein the requests are being sent either by IPv4 or the IPv6 networks.

Further applicant argues that argues that the present specification discloses that in contrast to the prior art, the name resolving unit forwarded to an enhanced DNS server does not have to be transmitted via a NAT-PT server.

In response, examiner would like to point out that claims are given the broadest reasonable interpretation during examination and limitations appearing in the specification but not recited in the claim are not read into the claim (See M.P.E.P. 2111 [R-l]).

Examiner would also like to point out the usage of NAP-PT server in the present application as being shown in figure 4. Figure 4 explains the usage of NAP-PT to be used for the connection based on load information.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usmaan Saeed whose telephone number is (571)272-4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 01, 2008

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